E-hailing as a Mobility Service

OPPORTUNITIES FOR TRANSIT AGENCIES

FDOT TRANSPORTATION SYMPOSIUM

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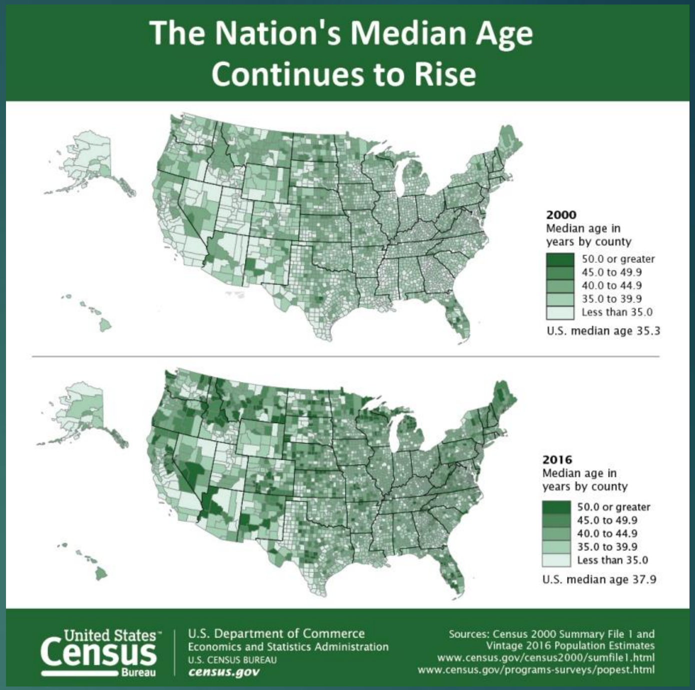
planning | design | engineering

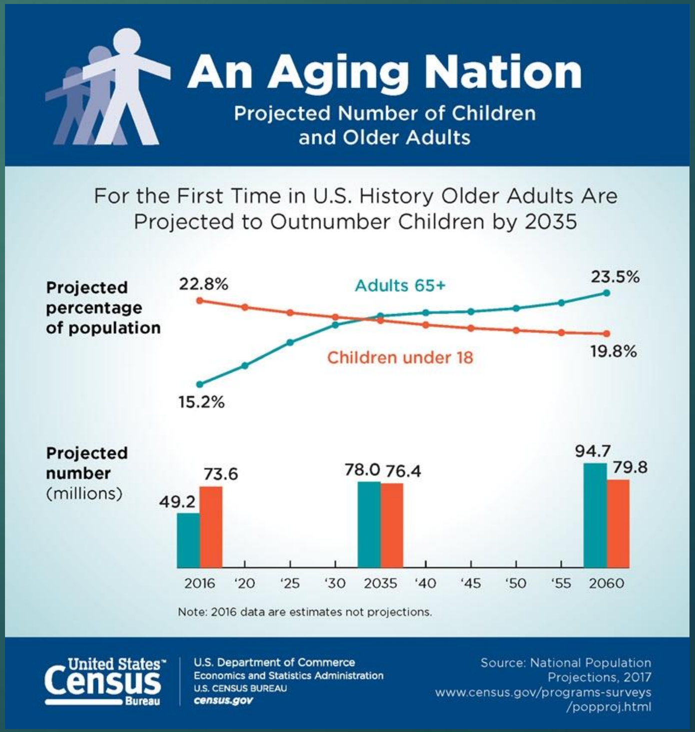
Key Takeaways

- We need to improve our ability to provide mobility more cost-effectively
- As a nation, we find *both* we are aging in place and we have the highest incidents of poverty in the *suburbs*, the *most difficult areas* of our communities to serve with transit
- Half of all adults will age in low-density places *without access to mobility*
- Traditional transit does not serve suburban areas well or cost-effectively
- The cost of providing mobility services for seniors, the disabled, and the poor is typically *$32-$36 per person-trip served*; double for a round trip $64-$72/person
- For the disabled and low income, access to mobility is access to opportunity; *lack of access to mobility* is the primary cause for endemic poverty
- Technology is creating and proving to provide means of *more cost-effective and convenient mobility service delivery strategies* for transit agencies
- The two largest obstacles to success are *understanding the service market* and applying technology *within the traditional transit operations framework*

Demographics

- Our aging population drives mobility demand
- Median age grew 35.3 (2000) to 37.9 (2016)
- In FL the median age was 42.1 in 2016
- Persons over 65 grew by 15 million 2000-2016
- Current rate of growth is 10,000 per day
- 1 in 6 persons are over 65, will be 1 in 5 by 2030
- By 2035 persons over 65 > those under 18
- 43 million people (13.5%) lived in poverty (2015)
- This is a growth of 11.5 million since 2000
- Suburban poverty is 48% of total increase
- Aging in place and poverty are found at rates highest in suburbs compared to cities, rural areas

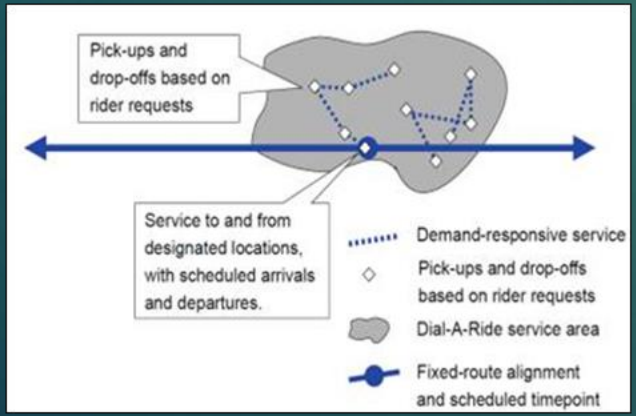




Mobility on Demand Strategies

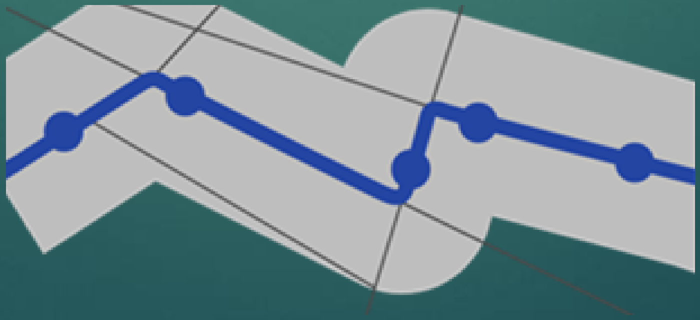
Anchored Dial a Ride

- All service on request
- Meets with fixed route
- Serves general public
- Local trips & 1^{st} – last mile
- JTA, LYNX, Denver



Point Deviation Flex

- Scheduled service
- Includes time points, stops
- Request off-route service
- General public & ADA
- Local trips & 1^{st} - last mile
- OmniLink, Cape Cod



Dynamic Flex

- No routes, no schedules
- Service on request
- Curb-to-curb shared ride
- General public & ADA
- Local trips & 1^{st} – last mile
- Zonal based service
- NeighborLink, VTA, AC Flex



Mobility on Demand Experiences

Partnering with TNCs

- TNC service tends to be 1 to 1 and only cost-effective for high cost trips
- PSTA experience with Uber found that more thought must go into developing the service, the market, and the agreements
- KCATA partnership with Bridj found the service market was too limited and the cost of service equated to $1000/passenger boarding

Serving ADA Needs

- A challenge to maintain accessible fleet and trained drivers at levels needed to serve density of ADA demand
- Centennial, CO pilot successfully partnered with Lyft and a non-profit to serve paratransit trips
- LYNX is partnered with Lyft to serve several hundred daily paratransit trips; the effort required to book each trip is at least 3 times greater than normal

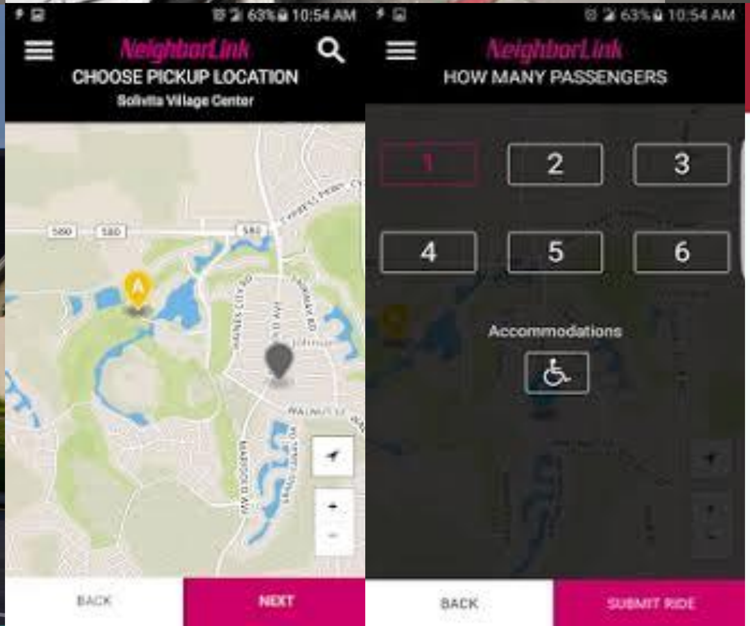
Dynamic Flex (e-hail)

- VTA Flex pilot (2016) 3.25 sqmi zone; on demand transit; max 7-min. wait time; avg. 0.5 pax/hour; pilot ended after 6 months
- AC Transit Flex pilot (2016) on demand in 2 zones; service overlaps fixed route and rail stations; avg. 7 pax/hour; increases fixed route ridership
- NeighborLink (2017) 13 zones provided local on demand mobility and links to fixed routes; improved cost-effectiveness; 50% use the app; call volume down 75%

Lessons Learned

- Mobility on demand services are working in various forms and markets
- It is better to start with existing services and modify; understand your market
- Technology alone is not the answer; success requires thoughtful operations planning
- Provide customers with immediate and scheduled options; e-hailing and a call center
- Assure ADA and Title VI compliance; call center and app based requests; accessibility
- Outreach, public awareness, public education is critical for success
- Partnering with TNCs has succeeded in 1st – last mile connections to rail; less so for general mobility or ADA services; fiscal liability is risky without control over demand
- TNC based services are shown to contribute more to congestion than provide mobility
- Transit agencies can be more productive and cost-effective by operating shared ride mobility on demand services and shifting TD and some ADA trips away from high cost door-to-door services

Mobility on Demand E-hailing Eye Candy!



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Any Questions?

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